

FORM PTO-1390 (Modified)
(REV 10-95)

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

ATTORNEY'S DOCKET NUMBER

TRANSMITTAL LETTER TO THE UNITED STATES

4298-146

DESIGNATED/ELECTED OFFICE (DO/EO/US)

U.S. APPLICATION NO. (IF KNOWN, SEE 37 CFR

CONCERNING A FILING UNDER 35 U.S.C. 371

TBA 10/018415

INTERNATIONAL APPLICATION NO.

INTERNATIONAL FILING DATE

PRIORITY DATE CLAIMED

PCT/SE00/01299

June 19, 2000

June 17, 1999

TITLE OF INVENTION

COMPUTER FOR WIRELESS EXECUTION OF INTERNAL OR EXTERNAL APPLICATION PROGRAM

APPLICANT(S) FOR DO/EO/US

MOBILISYS AB; RULAND, ANDERS; AND TIANEN, HELGE

Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

1. ☒ This is a **FIRST** submission of items concerning a filing under 35 U.S.C. 371.
2. ☐ This is a **SECOND** or **SUBSEQUENT** submission of items concerning a filing under 35 U.S.C. 371.
3. ☐ This express request to begin national examination procedures (35 U.S.C. 371(f)) at any time rather than delay examination until the expiration of the applicable time limit set in 35 U.S.C. 371(b) and PCT Articles 22 and 39(1).
4. ☒ A proper Demand for International Preliminary Examination was made by the 19th month from the earliest claimed priority date.
5. ☒ A copy of the International Application as filed (35 U.S.C. 371 (c) (2))
 - a. ☒ is transmitted herewith (required only if not transmitted by the International Bureau).
 - b. ☐ has been transmitted by the International Bureau.
 - c. ☐ is not required, as the application was filed in the United States Receiving Office (RO/US).
6. ☐ A translation of the International Application into English (35 U.S.C. 371(c)(2)).
7. ☐ Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371 (c)(3))
 - a. ☐ are transmitted herewith (required only if not transmitted by the International Bureau).
 - b. ☐ have been transmitted by the International Bureau.
 - c. ☐ have not been made; however, the time limit for making such amendments has NOT expired.
 - d. ☐ have not been made and will not be made.
8. ☐ A translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).
9. ☐ An oath or declaration of the inventor(s) (35 U.S.C. 371 (c)(4)).
10. ☐ A translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371 (c)(5)).

Items 11 to 16 below concern document(s) or information included:

11. ☐ An Information Disclosure Statement under 37 CFR 1.97 and 1.98.
12. ☐ An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.
13. ☒ A **FIRST** preliminary amendment.
A **SECOND** or **SUBSEQUENT** preliminary amendment.
14. ☐ A substitute specification.
15. ☐ A change of power of attorney and/or address letter.
16. ☒ Other items or information:
 1. INTERNATIONAL SEARCH REPORT
 2. 1 DRAWING

U.S. APPLICATION NO. (IF KNOWN, SEE 37 CFR 1.51(a)) 10/018415	INTERNATIONAL APPLICATION NO. PCT/SE00/01299	ATTORNEY'S DOCKET NUMBER 4298-146
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17. The following fees are submitted:

BASIC NATIONAL FEE (37 CFR 1.492 (a) (1) - (5)) :

Search Report has been prepared by the EPO or JPO **\$910.00**

International preliminary examination fee paid to USPTO (37 CFR 1.482) **\$700.00**

No international preliminary examination fee paid to USPTO (37 CFR 1.482) but international search fee paid to USPTO (37 CFR 1.445(a)(2)) **\$770.00**

Neither international preliminary examination fee (37 CFR 1.482) nor international search fee (37 CFR 1.445(a)(2) paid to USPTO **\$1,040.00**

International preliminary examination fee paid to USPTO (37 CFR 1.482) and all claims satisfied provisions of PCT Article 33(2)-(4) **\$96.00**

ENTER APPROPRIATE BASIC FEE AMOUNT =**\$1,040.00**

Surcharge of **\$130.00** for furnishing the oath or declaration later than months from the earliest claimed priority date (37 CFR 1.492 (e)). ☐ 20 ☐ 30

\$0.00

CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE
Total claims	- 20 =	0	x \$22.00
Independent claims	- 3 =	0	x \$80.00

\$0.00**\$0.00**Multiple Dependent Claims (check if applicable). ☐**\$0.00****TOTAL OF ABOVE CALCULATIONS =****\$1,040.00**

Reduction of 1/2 for filing by small entity, if applicable. ~~Verified~~ Small Entity Statement must ~~have been~~ filed (Note 37 CFR 1.9, 1.27, 1.28) (check if applicable). ☒

\$520.00**SUBTOTAL =****\$520.00**

Processing fee of **\$130.00** for furnishing the English translation later than months from the earliest claimed priority date (37 CFR 1.492 (f)). ☐ 20 ☐ 30

\$0.00**TOTAL NATIONAL FEE =****\$520.00**

Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31) (check if applicable). ☐

\$0.00**TOTAL FEES ENCLOSED =****\$520.00****Amount to be:
refunded****\$****charged****\$**

☒ A check in the amount of **\$520.00** to cover the above fees is enclosed.

☐ Please charge my Deposit Account No. _____ in the amount of _____ to cover the above fees.
A duplicate copy of this sheet is enclosed.

☒ The Commissioner is hereby authorized to charge any fees which may be required, or credit any overpayment to Deposit Account No. **13-2165** A duplicate copy of this sheet is enclosed.

NOTE: Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the application to pending status.

SEND ALL CORRESPONDENCE TO:

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REGISTRATION NUMBER

December 14, 2001

DATE

10/018415

JC13 Rec'd PCT/PTO 14 DEC 2001

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
RULAND, ET AL.

: Group Art Unit: TBA

Serial No.: TBA

Filed: December 14, 2001

: Date: December 14, 2001

For: Computer For Wireless Execution Of
Internal Or External Application
Program

: Attorney Docket: 4298-146 US

Box Application
Commissioner of Patents
Washington, D.C. 20231

PRELIMINARY AMENDMENT

Sir:

Preliminary to the first official action in the above-identified application, please enter the following amendments and remarks.

In the Figures

Please substitute the translated Figure 1 for the figure published in the PCT Application which was not translated.

In the Claims:

Please add claims 4-17.

201050-5148001

4. A computer system having an operating system, a first set of application programs, a second set of application programs, and an external computer, the computer system comprising:
 - an input unit;
 - an output unit;
 - at least one processor unit;
 - a storage unit, for storing an operating system of the computer and for storing the first set of application programs, the storage unit coupled to the at least one processor unit;
 - a wireless communication unit coupled to the at least one processor;wherein the computer system has a first mode of operation, in which the at least one processor unit executes the first set of application programs loaded from the storage unit and a second mode of operation, in which the external computer executes the second set of application programs, the external computer is coupled to the wireless communication unit and the input unit coupled is coupled to the wireless communication unit for control of the second set of application programs.
5. The computer system as recited in claim 4 wherein the second storage unit is optically coupled to the at least one processor unit.
6. The computer system as recited in claim 4 wherein the second storage unit is electrically coupled to the at least one processor unit.
7. The computer system as recited in claim 4 wherein the wireless communication unit is an interface for package intermediary communication.
8. The computer system as recited in claim 7 wherein interface communicates via GPRS.
9. The computer system as recited in claim 7 wherein interface communicates via EDGE.
10. The computer system as recited in claim 7 wherein interface communicates via UMTS.

11. A computer system having a first set of application programs and a second set of application programs, and an external computer, the computer system comprising:
- an input unit;
 - an output unit;
 - at least one processor unit;
 - a storage unit, for storing an operating system and for storing the first set of application programs, the storage unit coupled to the at least one processor unit;
 - a wireless communication unit coupled to the at least one processor;
- wherein the computer system has a first mode of operation, in which the at least one processor unit executes the first set of application programs loaded from the storage unit and a second mode of operation, in which the external computer executes the second set of application programs, the external computer is coupled to the wireless communication unit and the input unit coupled is coupled to the wireless communication unit for control of the second set of application programs.
12. The computer system as recited in claim 11 wherein the second storage unit is optically coupled to the at least one processor unit.
13. The computer system as recited in claim 11 wherein the second storage unit is electrically coupled to the at least one processor unit.
14. The computer system as recited in claim 11 wherein the wireless communication unit is an interface for package intermediary communication.
15. The computer system as recited in claim 14 wherein interface communicates via GPRS.
16. The computer system as recited in claim 14 wherein interface communicates via EDGE.
17. The computer system as recited in claim 14 wherein interface communicates via UMTS.

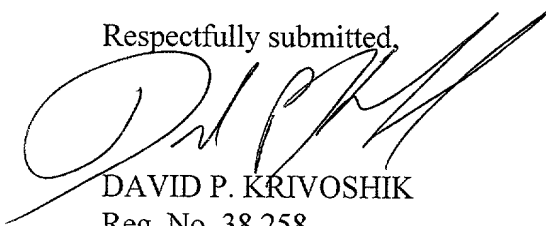
REMARKS

By this preliminary amendment, applicant has amended the claims to more clearly state the present invention.

The applicants respectfully submit that the claims currently stand in condition for allowance. Should there remain any questions or other matters whose resolution may be advanced by a telephone call, the Examiner is cordially invited to contact the applicants' undersigned attorney at his number below.

Please address all correspondence to David P. Krivoshik, Esq., Mathews, Collins, Shepherd and Gould, PA, 100 Thanet Circle Suite 306, Princeton, New Jersey 08540-3674. All telephone calls should be made directly to me at 609-924-8555, fax communications should be sent directly to me at 609-924-3036 and e-mail should be made directly to me at patentlaw@acm.org. If there are any fees due in respect to this amendment, please charge them to Deposit Account No. 13-2165. Authority is hereby given to charge any such deficiency, or credit any overpayment to Deposit Account No. 13-2165 Mathews, Collins, Shepherd & Gould. The Examiner is invited to contact the undersigned if further information is required.

Respectfully submitted,



DAVID P. KRIVOSHIK

Reg. No. 38,258

ATTORNEY FOR APPLICANT

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FIELD OF THE INVENTION

10 PRIOR ART

For this reason there have been developed computers devoid of mechanical storage memories, equipped instead with read only memories (ROM), keeping the content of memory over time without consumption of power. At first hand it is the operating system of the computer that is stored in the read only memory. Additional electronic memory means are arranged for storing of application software. Such electronic memory means can comprise or consist of so called "Flash memories". The computer also comprises read-and-write-memories (RAM), used in connection with execution of application software and other programs. A large advantage with this kind of computers is that they are quickly set into active mode with both operating system and application software stored in electronic memories. Electronic memories also include magnetic memories that are devoid of mechanical movable parts and different types of optical memories, e.g. such using holographic storing. Accordingly, no communication with a

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comparatively slow mechanical memory is required, but only with considerably faster types of memories.

A disadvantage with above described computers is that the operating system is more restricted than one based on a storage memory, reducing the applicability. One additional disadvantage is that also the application software for use in the computer is less extensive and more simple in design and capacity.

10

THE INVENTION IN SUMMARY

15

An object of the invention is therefore to eliminate the above mentioned disadvantages and to produce a computer that will allow a use of more complex application software and utilization of a powerful operating system.

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This object is obtained by the invention having the features mentioned in claim 1. Additional features and advantages of the invention is made clear by the following description, dependent claims and drawing.

THE INVENTION

25

The figure shows a schematic block diagram of one embodiment of a computer 10 according to the invention. The computer comprises an input unit 11, which may be a conventional key board with small dimensions, and an output unit 12, which may be a conventional display. The input unit 11 may also comprise some form of a pointing device and a microphone, allowing control of operating systems and application software in an effective manner. The output unit 12 may also comprise loudspeakers.

The computer 10 is also furnished with a processor unit 13, e.g. a conventional CPU. The operative system, used by the computer in a first working mode is stored in a read only memory 14, a so called ROM-memory, or in a so called FLASH-memory. During execution of different programs in the processor unit 13 there is used also a read-and-write-memory 15, also known as RAM-memory, which is connected to the processor unit. The computer comprises also, in a conventional fashion, a logic controller 16. The processor unit 13, the read memory 14, the read-and-write-memory and the logic controller 16 are all included in a central unit 17.

For the storing of data, in the form of document files and similar, and application software is a storing unit 18 connected to the central unit 17. The storing unit 18 is formed as a quick memory, e.g. a so called flash-memory. Other electronic or optical memories may also be used for this purpose. The storing unit 18 is, however, made to keep its memory content at a very low consumption of power, or, in an idle mode, no consumption of power at all.

In a first working mode, the above described units and means for execution of less extensive application software, are utilized. Current application software is normally developed specially for this kind of computer, and all of the execution may be executed with the computer entirely detached. The operating system stored in the read memory 14 operates the loading of the application software, and the execution thereof is attended by the processor unit 13. The user controls the application software via the input unit 11 and receives output data via the output unit 12, in a conventional fashion.

In a second working mode a communication unit 19, designed for wireless communication, is connected to the central unit 17. Preferably the communication unit 19 is made for package intermediary communication, e.g. according to any of the systems GPRS (General Packet Radio Service), EDGE (Enhanced Data rates for Global Evolution) or UMTS (Universal Mobile Telecommunication System). The computer 10 is connected to an

external computer 20 via the communication unit 19. The external computer 20 is more powerful than the computer 10 and is configured to execute the application software for other computers, so called clients, like a server.

In the second working mode, the central unit 17 by the computer 10,
5 is at first hand used to operate any required communication between the computer 10 and the external computer 20, via the communication unit 19. The communication includes a transfer of user input, applied by the user via the input means 11, to the external computer 20 and a reception of image and sound information, which is to be made available to users via the output
10 means 12.

The execution in this working mode, is made in the external computer 20, which may be a very powerful computer. The interface for communication used for the communication between the computer 10 and the external computer 20 does not have to be especially powerful, since no
15 amount of data or program is transferred. In principle, only the users control data and such output data that would interest the user is transferred. Output data comprise, in principal, data for updating of a display.

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CLAIMS

1. A computer (10), comprising an input unit (11) and an output unit (12), at least one processor unit (13) and a first storing means (14), for storing the operating system of the computer, *characterised* in
- 5 that a storing unit (18) for storing a first set of application software, and being connected to the processor unit (13), is made electronic or optic,
- 10 that a communication unit (19) for wireless communication is connected to the processor unit (13),
- that the computer is adjustable between a first working mode, in which the processor unit (13) executes a first set of application software loaded from the storing unit (18) in a working memory (15), and a second working mode, in which a second set of application software is
- 15 executed in an external computer (20), connected via the communication unit, and
- that the input unit (11) is connected to the communication unit (19), for control of the second set of application software in the second working mode.
- 20
2. A computer according to claim 1, wherein the communication unit (19) comprise an interface for package intermediary communication.
3. A computer according to claim 2, wherein the communication unit (19)
- 25 comprise an interface for communication via GPRS, EDGE or UMTS.

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
11 January 2001 (11.01.2001)

PCT

(10) International Publication Number
WO 01/02969 A1

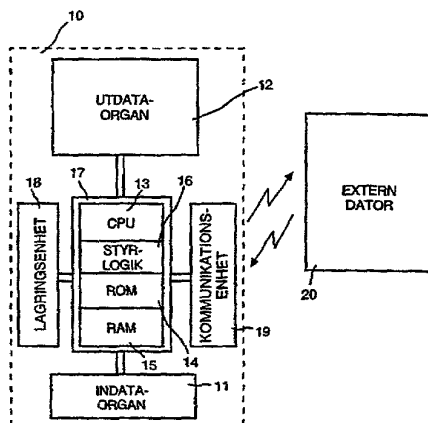
- (51) International Patent Classification⁷: **G06F 15/00**, (74) Agent: **HANSSON THYRESSON PATENTBYRÅ AB**,
H04L 29/06, G06F 13/12 P.O. Box 73, S-201 20 Malmö (SE).
- (21) International Application Number: **PCT/SE00/01299** (81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.
- (22) International Filing Date: **19 June 2000 (19.06.2000)**
- (25) Filing Language: **Swedish**
- (26) Publication Language: **English**
- (30) Priority Data: **9902292-3** **17 June 1999 (17.06.1999)** **SE** (84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).
- (71) Applicant (*for all designated States except US*): **MOBILISYS AB [SE/SE]**; Ole Römers väg 16, S-223 70 Lund (SE).
- (72) Inventors; and
- (75) Inventors/Applicants (*for US only*): **RULAND, Anders [SE/SE]**; Landålettgatan 20, S-212 42 Malmö (SE). **TIAINEN, Helge [SE/SE]**; Sättra 1407, S-760 10 Bergshamra (SE).

Published:

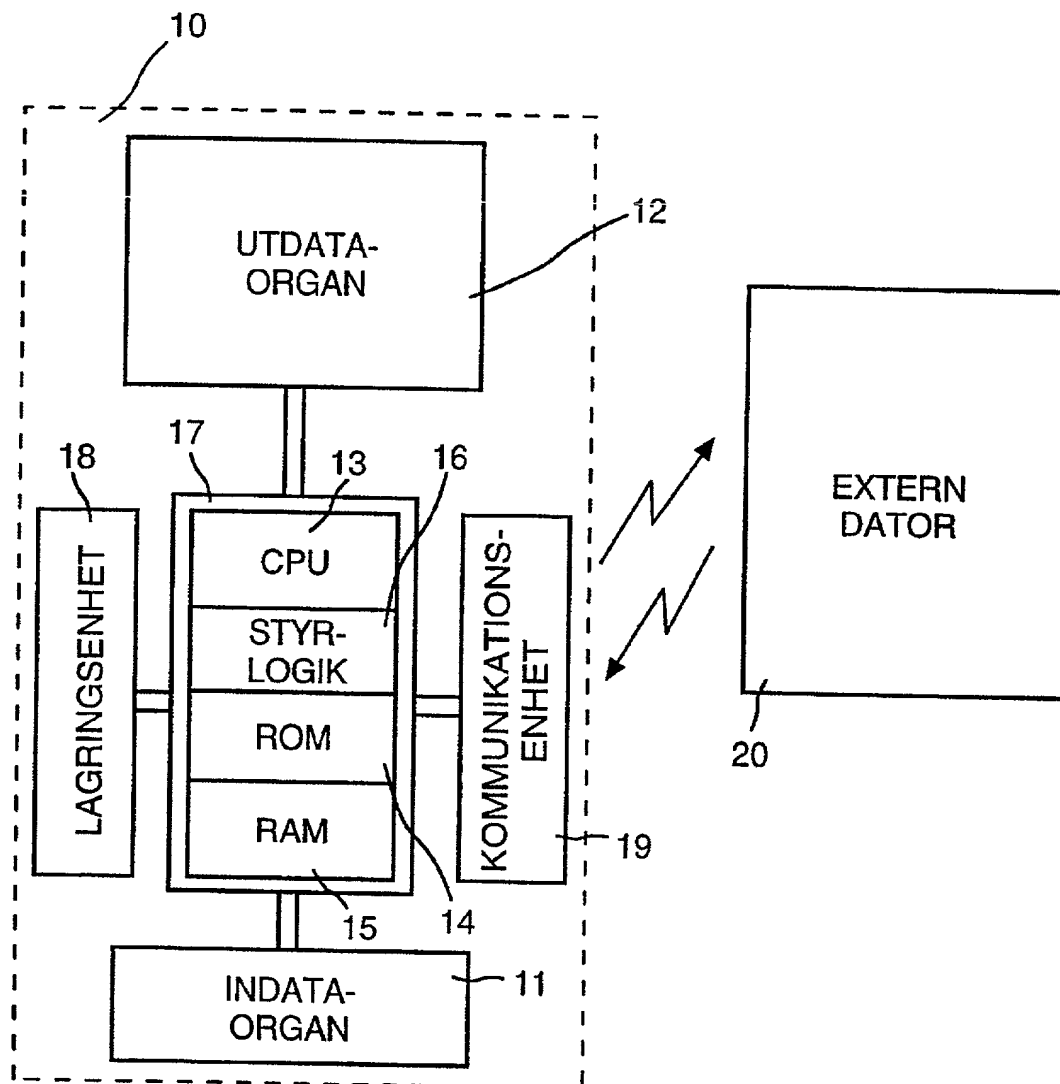
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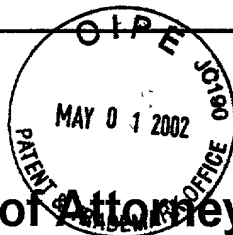
For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: **COMPUTER FOR WIRELESS EXECUTION OF INTERNAL OR EXTERNAL APPLICATION PROGRAM**



(57) Abstract: A computer (10), comprising an input unit (11) and an output unit (12), at least one processor unit (13) and a first storing means (14) for the storing of the operating system of the computer. A storing unit (18) for storing a first set of application software, and being connected to the processor unit (13), is made electronic or optic. A communication unit (19) for wireless communication is connected to the processor unit (13). The computer is adjustable between a first working mode, in which the processor unit (13) executes a first set of application software loaded from the storing unit (18) in a working memory (15), and a second working mode, in which a second set of application software is executed in an external computer (20), connected via the communication unit. The input unit (11) is connected to the communication unit (19), for control of the second set of application software in the second working mode.





Docket No.
4298-146 US

Declaration and Power of Attorney For Patent Application

English Language Declaration

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name,

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

the specification of which

(check one)

☐ is attached hereto.

☒ was filed on December 14, 2001 as United States Application No. or PCT International Application Number 10/018,415 and was amended on _____

(if applicable)

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose to the United States Patent and Trademark Office all information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations, Section 1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, Section 119(a)-(d) or Section 365(b) of any foreign application(s) for patent or inventor's certificate, or Section 365(a) of any PCT International application which designated at least one country other than the United States, listed below and have also identified below, by checking the box, any foreign application for patent or inventor's certificate or PCT International application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application(s)			Priority Not Claimed
<u>9902292-3</u>	<u>Sweden</u>	<u>076/17/1999</u>	<input type="checkbox"/>
(Number)	(Country)	(Day/Month/Year Filed)	
_____	_____	_____	<input type="checkbox"/>
(Number)	(Country)	(Day/Month/Year Filed)	
_____	_____	_____	<input type="checkbox"/>
(Number)	(Country)	(Day/Month/Year Filed)	

I hereby claim the benefit under 35 U.S.C. Section 119(e) of any United States provisional application(s) listed below:

(Application Serial No.)

(Filing Date)

(Application Serial No.)

(Filing Date)

(Application Serial No.)

(Filing Date)

I hereby claim the benefit under 35 U. S. C. Section 120 of any United States application(s), or Section 365(c) of any PCT International application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application in the manner provided by the first paragraph of 35 U.S.C. Section 112. I acknowledge the duty to disclose to the United States Patent and Trademark Office all information known to me to be material to patentability as defined in Title 37, C. F. R., Section 1.56 which became available between the filing date of the prior application and the national or PCT International filing date of this application:

PCT/SE00/01299

06/19/2000

(Application Serial No.)

(Filing Date)

(Status)
(patented, pending, abandoned)

(Application Serial No.)

(Filing Date)

(Status)
(patented, pending, abandoned)

(Application Serial No.)

(Filing Date)

(Status)
(patented, pending, abandoned)

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith. (Not name and registration number)

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Full name of second inventor, if any	ILAINEN, Hege	Date	X 2002-04-19
Second inventor's signature			
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